

## Amendments to the Claims

Claims 1-47 (Cancelled).

5 48. (Currently Amended) A method for creating an emitter having a flat cathode emission surface, comprising the steps of:

forming a protective layer that is conductive on the flat cathode emission surface;

then creating an electronic lens structure over the protective layer; and

10 then etching the protective layer to expose the flat cathode emission surface.

49. (Original) An emitter created by the process of claim 48.

15 50. (Original) The method of claim 48 wherein the step of applying the protective layer further comprises the step of applying a layer of titanium or molybdenum to a thickness of about 300 to about 1500 Angstroms.

51. (Currently Amended) The method of claim 48 further comprising the step of  
20 applying a cathode layer on a flat tunneling layer disposed over an electron supply  
to create the flat cathode emission surface, the cathode layer including gold or platinum.

Claim 52 (Cancelled)

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53. (Original) The method of claim 48 wherein the protective layer is etched with sulfuric peroxide or ammonia and water to create the exposed cathode emission surface.

30 54. (Original) The method of claim 53 wherein the sulfuric peroxide etch is performed using about 1 part H<sub>2</sub>O and about 2 parts H<sub>2</sub>SO<sub>4</sub>.

55. (Currently Amended) A method for creating an flat tunneling emitter on an electron supply, comprising the steps of:

applying a tunneling layer on the electron supply;

then applying a flat cathode layer on the tunneling layer;

5 then applying a protective layer that is conductive on the flat cathode layer;

then applying an electron lens structure on the protective layer; and

then creating an opening in the electron lens structure and protective layer to the flat cathode ~~surface~~layer.

10 56. (Original) An emitter created by the process of claim 55.

57. (Original) The method of claim 55 wherein the applied protective layer is titanium or molybdenum having a thickness of about 300 to about 1500 Angstroms.

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Claims 58-69 (Cancelled)